

A Corporate Publication of Santee Cooper

POWERSOURCE

WINTER 2009



from the CEO

In many ways, 2008 is a tale of two years. The first is the one we are focused on as a nation: the economy faltered, consumer confidence plummeted and we ended the year in a recession. These events have greatly impacted the energy industry. The second, though, is Santee Cooper's success story. Even as our utility joined in the national belt-tightening, we look back on a significant set of accomplishments in every one of our major business areas, all of which will help us continue to deliver low-cost and reliable power in 2009.

Santee Cooper completed a 25-year build-out of Cross Generating Station in October with the completion of Cross Unit #4. Cross Station is now the state's largest coal-fired generating station and one that cements our role as the state's largest power producer. This highly efficient station ensures that we generate the most power from the least amount of coal possible.

We made tremendous progress on our plans to build new base load generation, both coal-fired and nuclear power. We received an air permit from the state Department of Health and Environmental Control in December, marking another step forward in our permitting of the new Pee Dee Energy Campus planned for Florence County. Regarding nuclear power, we filed an application with the Nuclear Regulatory Commission, with partner South Carolina Electric and Gas, and secured a contract with Westinghouse to expand generation at our existing V.C. Summer Nuclear Station near Columbia. Santee Cooper and SCE&G have been safely producing nuclear power since the 1980s at that site, and these two new reactors would expand our ability to generate emissions-free, reliable and safe power to meet our customers' needs. We anticipate bringing the Pee Dee Energy Campus online in 2013 and the first nuclear power unit online in 2016.

Santee Cooper's Conservation and Renewable Energy Department added several new Santee Cooper Green initiatives, including a fourth renewable Green Power landfill generating station (in Anderson County), new wind energy research projects along the coast, several new Green Power Solar Schools and announcements

for 50 megawatts of renewable biomass power by 2011 and a significant solar-and-hydrogen research project at the Center for Hydrogen Research in Aiken. In the conservation arena, Santee Cooper Green successfully gave out more than 750,000 free compact fluorescent light bulbs to our customers in the spring and summer, helped interested and eligible customers install solar panels at home and arranged to buy excess power they produce, and launched a Power Down initiative to help customers save energy and better manage the impact of increased fuel costs on their electric bills.

As the year ended, our Board of Directors approved a 2009 budget totaling \$2.63 billion. That increase over the 2008 budget is directly tied to increasing fuel costs such as coal, and it explains why our Power Down campaign is so important. We understand the economy is already hurting many of our customers. Santee Cooper has made our own changes, including significant budget cuts, not filling vacancies and delaying or cutting construction projects. At the same time, we must plan and invest in the necessary infrastructure in order to keep the lights on. It is a delicate balance and one we take seriously.

We look forward to continuing to meet your power needs affordably, reliably and in a way that protects our environment in 2009 and beyond. Happy New Year.



Lonnie N. Carter
President and Chief Executive Officer



santee cooper



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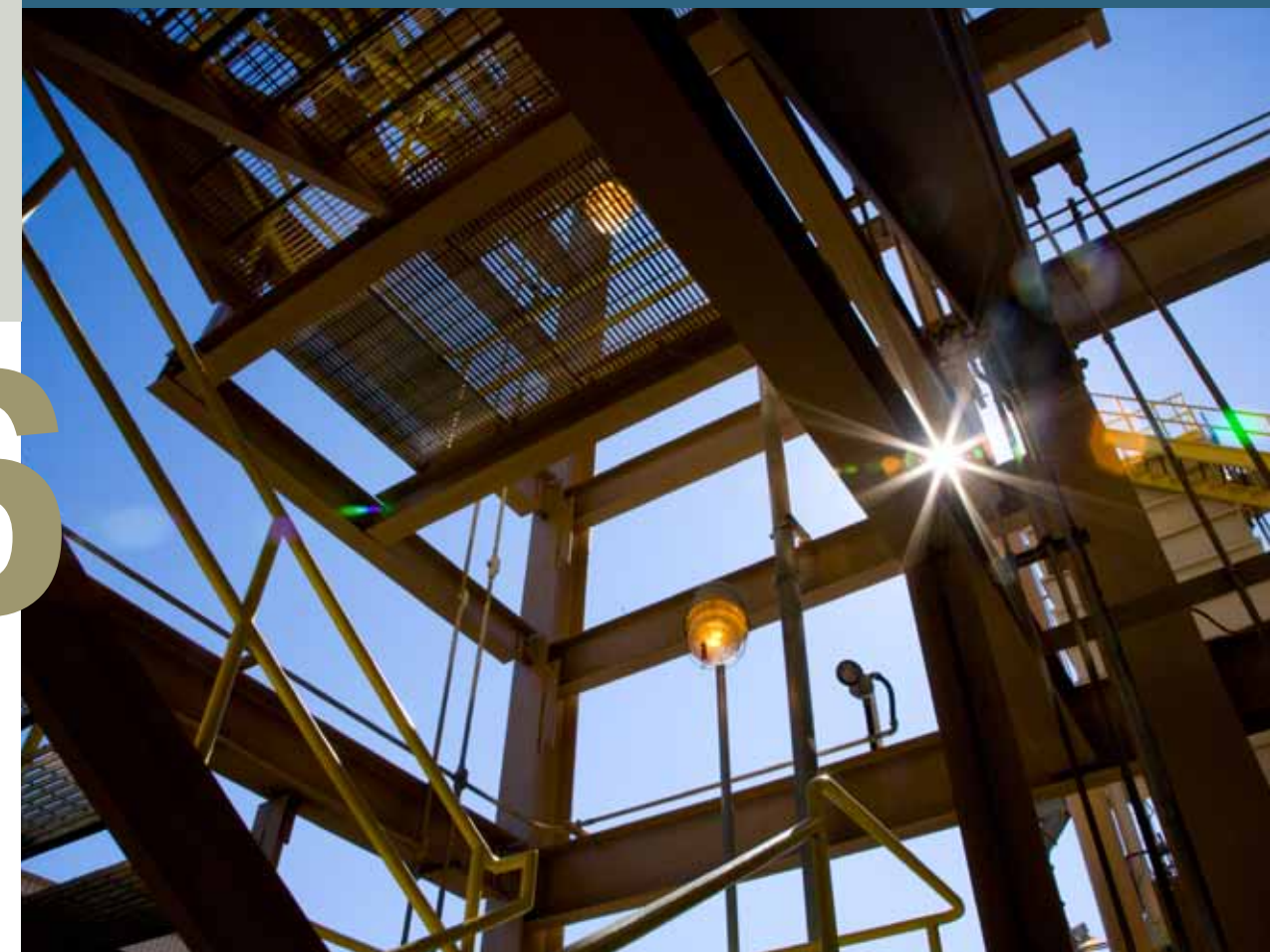
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Cross Generating Station: 2,400 MWs Strong

By Willard Strong
Photography by Jim Huff



About the cover: Water vapor streams from the stack of Units 3 and 4 at Santee Cooper's Cross Generating Station in Berkeley County. At the base of the stack is the flue-gas desulfurization (FGD) area, where almost all of the sulfur dioxide and nitrogen oxide is removed from the stack emissions. Approximately one-third of the units' total \$1.4 billion cost was invested in environmental protection equipment. The overhead conveyor system on the left carries limestone into the FGD system. A byproduct of this process is synthetic gypsum, which Santee Cooper recycles by selling to American Gypsum for use in making drywall. (Photo by Jim Huff)

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On April 7, 1934, Gov. Ibra C. Blackwood signed into law an act that created the S.C. Public Service Authority, more commonly known as Santee Cooper. It was the culmination of more than 150 years worth of efforts to tap the Santee and Cooper rivers for economic development in a state long starved for prosperity. Never in their wildest dreams could the 1770 committee of the colonial Commons House of Assembly that first proposed developing the two rivers have predicted their inland-navigation project would evolve into South Carolina's largest power producer and one of the largest public-power utilities in the U.S.

"Santee Cooper has really been one of the catalysts for doing what the legislature set out for us to do when it created us in 1934, which was to improve the quality of people's lives," says Santee Cooper President and CEO Lonnie Carter. "That might sound like a clichéd statement, but it really meant something 75 years ago."

In his book, "History of Santee Cooper: 1934-1984," noted South Carolina historian Dr. Walter Edgar characterizes the years between the Civil War and World War II as a desperate time in South Carolina where job opportunities were scant and living conditions were dire.

"For the vast majority of South Carolinians who lived on farms, the 1930s could have just as easily been the 1830s," Edgar writes. "As beautiful and timeless as the Carolina landscape appeared to the casual observer during the 1930s, life was difficult. Families struggled for survival, to eke out a living using centuries old farming techniques. There were no labor saving devices available to assist the

(Below left) Before construction of the reservoir could begin, some 900 families had to be relocated. Santee Cooper helped those who were dispossessed move to a new home site. Some homes were taken down and rebuilt at their new locations and others were moved whole. When neither option was available, arrangements were made for new housing.

(Right) An aerial view of one of the 22 work camps that were built to accommodate the 12,500 men who were employed on the Santee Cooper project. Some of the camps were temporary and could be moved as work progressed. According to Edgar, there were men from every county in the state on the payrolls of the 33 contractors employed by Santee Cooper. The State Employment Commission gave first hiring preferences to resident South Carolinians. "By the summer of 1940," Edgar writes, "Santee Cooper became the largest Public Works Administration project in the United States."

According to Dr. Walter Edgar's "History of Santee Cooper: 1934-1984," only 2.5 percent of the farms in South Carolina had electricity in 1936. "While some farmers still eked a living from the tired land, they did it the hard way: with no mechanization and few comforts at home," Edgar writes. "Their lot would be dramatically improved by rural electrification."

POWERING GENERATIONS

By Kevin F. Langston

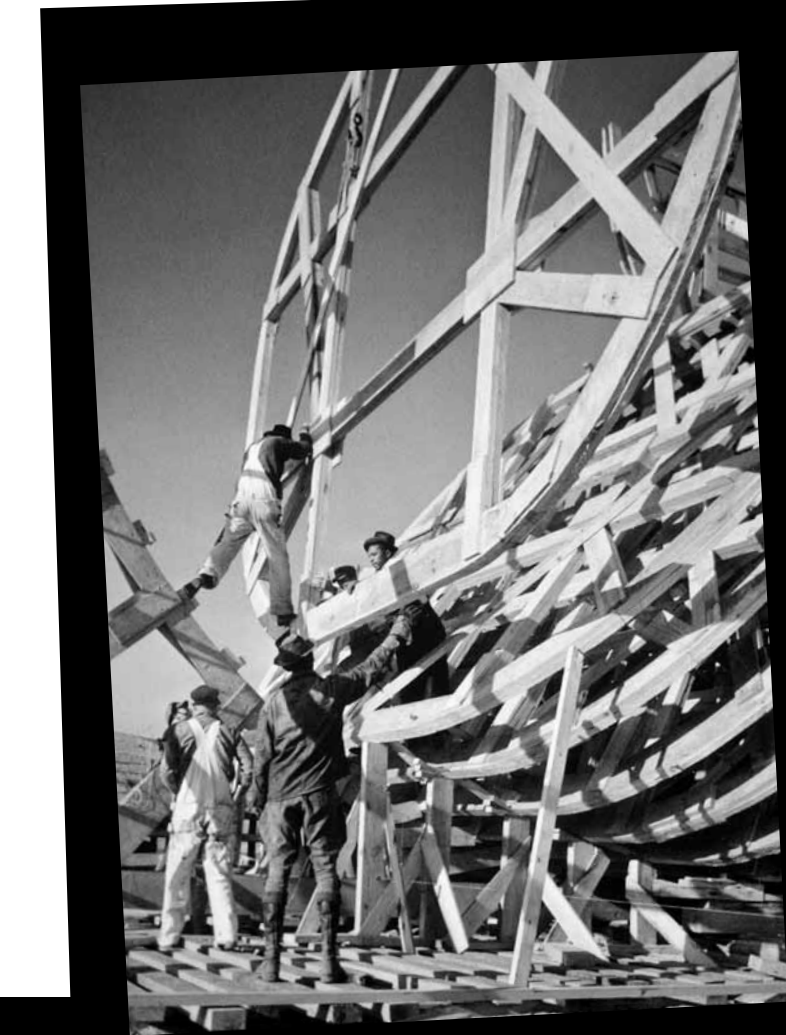
Photos from Santee Cooper Archives





(Top and left) According to Edgar, most of the workers were hired to help clear the land with axes and crosscut saws. "The most extensive land-clearing project in the history of the United States was done mostly by hand," he writes.

(Right) A surveyor stands above the excavation site for the Pinopolis dam and powerhouse (Jefferies Hydro Station today). The excavation went to a depth 55 feet below sea level, and limestone provided the natural base for the powerhouse and lock.



(Top left) According to Edgar, one of the largest cement-mixing plants in the country was built on site to produce the 3.1 million cubic yards of cement used in the construction at Pinopolis. Here a crew is unloading a bucket of concrete into a form for a draft tube.

(Top right) Carpenters relied only on their skills and their hand tools to build the wooden forms for the intake valves in the powerhouse. Once set in concrete, the water would travel through these valves and around the turbines to produce electricity.

(Lower left) A riveter works at the construction site of the Pinopolis powerhouse.

farmer or his wife and children with their chores. Life went on as it had for generations.”

It’s a chapter of South Carolina’s history Carter is familiar with, having grown up in rural Ehrhardt. Although his family’s home was electrified by the time he came along, Carter was not far removed from the days when his family had to pump its own water from a well or dedicate a full day every week to go outside and do the laundry in large iron pots.

“It’s nothing short of remarkable how electricity changed people’s lives, and because of where I grew up I’ve really had a taste of the real transition that took place,” Carter says. “Electricity did things like pump water and allow rural America to have indoor appliances. It grew industry. It provided the fuel that brought good-paying jobs. Santee Cooper didn’t create these conveniences, but it did create the foundation so they could exist in much of South Carolina.”

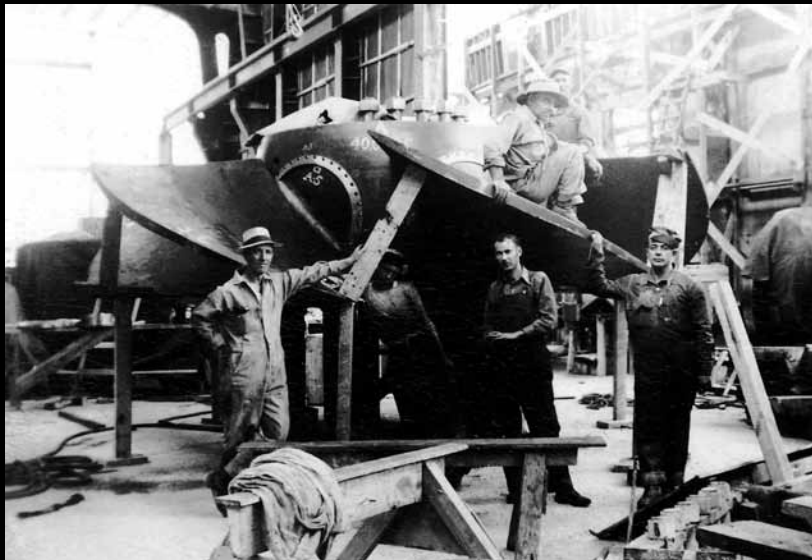
Edgar writes one of the major reasons Santee Cooper was created was to electrify the rural reaches of the state. The 1935 creation of the Rural Electrification Administration spurred the growth and development of electrical cooperatives in South Carolina, and as soon as Santee Cooper began producing electricity in 1942, some cooperatives began purchasing its power. Facing growing demand, 14 electric cooperatives joined together in 1948 to form Central Electric Power Cooperative whose main purpose, Edgar writes, was to build a transmission system that would enable the electricity generated by Santee Cooper to reach 35 of the state’s 46 counties. Today, Central is comprised of 20 electric cooperatives that distribute Santee Cooper electricity throughout every county.

“Santee Cooper was very important to cooperatives at the dawn of rural

(Below) While the turbines were being built offsite, work continued on the hydro station. This photograph shows the powerhouse, where the Tailrace Canal runs for four miles until it meets the Cooper River.

(Page 9, top) The footprints for the hydro turbines begin to take shape. When they were ready to be installed, Edgar writes the five turbines arrived piecemeal in railway cars.

(Page 9, bottom) The size and scale of the turbines were massive. According to Edgar, it took two 100-ton cranes to lower a single water wheel in place.



electrification in South Carolina,” says Terry Ballenger, Blue Ridge Electric Cooperative manager of communications. “Santee Cooper provided reasonably priced wholesale electricity for co-ops at a time when the investor-owned utilities were often reluctant to do so, and that relationship has endured to this day.”

Carter says Santee Cooper could not have experienced the success it’s had without the electric cooperatives. “It’s been a very symbiotic relationship. They are very good at providing that frontline service that enables us to concentrate on generating low-cost power, particularly to the large industries that have moved in to the area,” he says. “There hasn’t been a person who has sat in this office who hasn’t appreciated the importance of the relationships with the electric cooperatives and the industrial customers.”

Sen. Larry Grooms, R-Berkeley County, says these relationships have transformed South Carolina. “Through Santee Cooper’s ability to provide reliable and affordable electricity, we’ve been able to attract industries like Nucor Steel, Alcoa and International Paper. It’s not just the family in Berkeley County that has more opportunities because of Santee Cooper, it’s the family in Pickens County also.”

Carter also attributes Santee Cooper’s progress to its status as a public-power utility. “It’s been one of the great factors in our success and will be in the future,” he says.

American Public Power Association President and CEO Mark Crisson says public power emerged more than 100 years ago as a benchmark for what a reliable and competitive power provider should look like. “If you didn’t have a not-for-profit, consumer-owned alternative to the investor-owned utilities it would be harder to know what constitutes a good level of service and high level of achievement,” he says. “It’s been a very

important role that public power continues to play today, perhaps more important today than ever.”

Crisson also says public power afforded more local control to communities that saw electricity as an essential service to the public health and well-being of a community and to its standard of living.

“It’s not unique to public power, but when you have a large investor-owned utility spanning five or six states it’s harder to be focused on the communities that you serve. Santee Cooper’s a good example, but we have hundreds of other public utilities that recognize their health and well-being depends largely on the health and well-being of their community,” he says. “Being a good community partner is not only the right thing to do, it’s a good business strategy.”

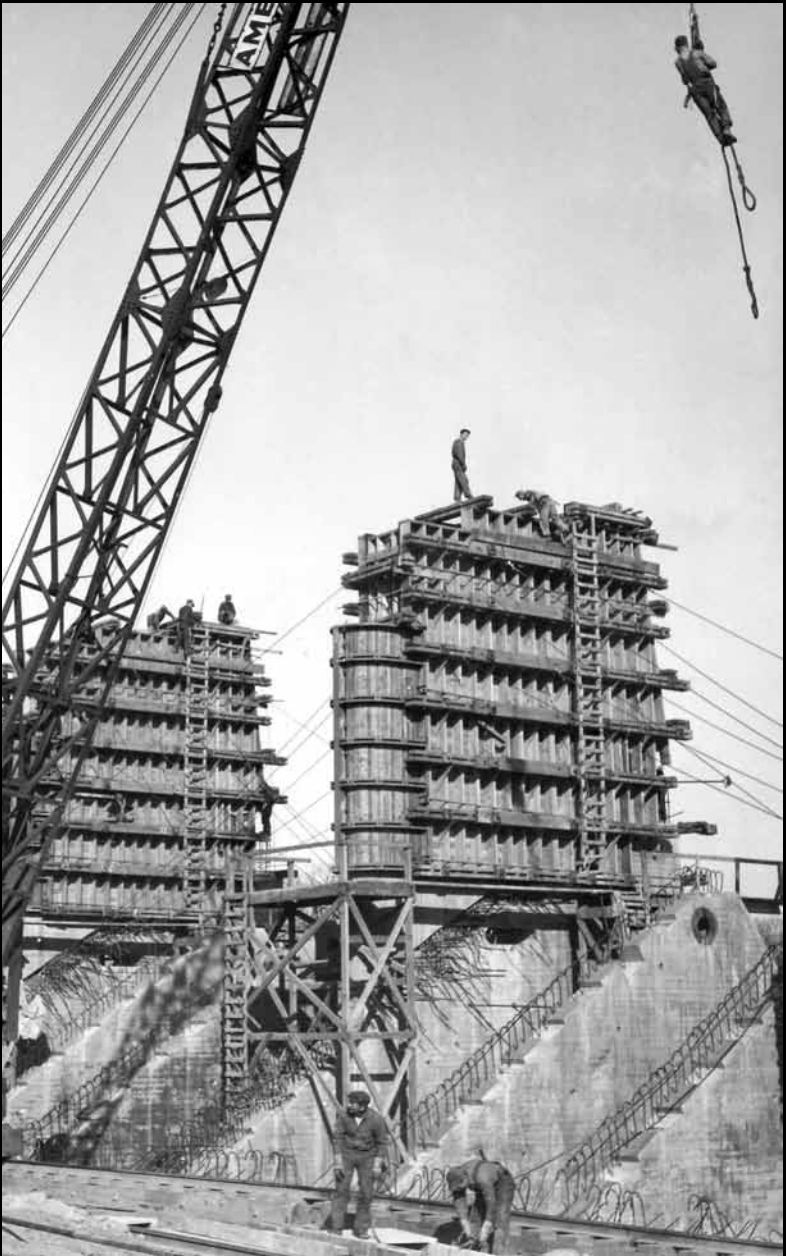
Reflecting on 75 years of progress, Carter says everything Santee Cooper has accomplished can be credited to its employees. “Nothing gets done at Santee Cooper without good people behind it. They care about the people they serve and the communities they live in, and they want to do a good job. Any company would envy having that kind of work force.”

Carter says Santee Cooper has solved a lot of challenges in its first 75 years, “and it’ll see a lot of challenges in its second 75. Santee Cooper’s got to navigate through that, and we do that by having very skilled and qualified employees at every level of the organization doing their jobs to make sure the company is successful.”

Rep. Joe Jefferson, D-Berkeley County, says he has seen firsthand how Santee Cooper and its employees positively impact a community. “Santee Cooper has been a godsend to our economy in Berkeley County and throughout our state. So many people have benefited in so many ways from Santee Cooper.”

Carter noted Santee Cooper’s legislative mandate to improve South Carolinians’ health, welfare and material prosperity. “Electricity

Crews construct the concrete pillars designed to support the 3,400-foot long Santee Spillway’s 62 flood-control gates. “Prior to Santee Cooper, flood control along the Santee had been a problem for years,” Edgar writes. “On the average, the river overflowed its banks nine times a year. The construction of Santee Cooper eliminated this age-old threat to life and prosperity.”



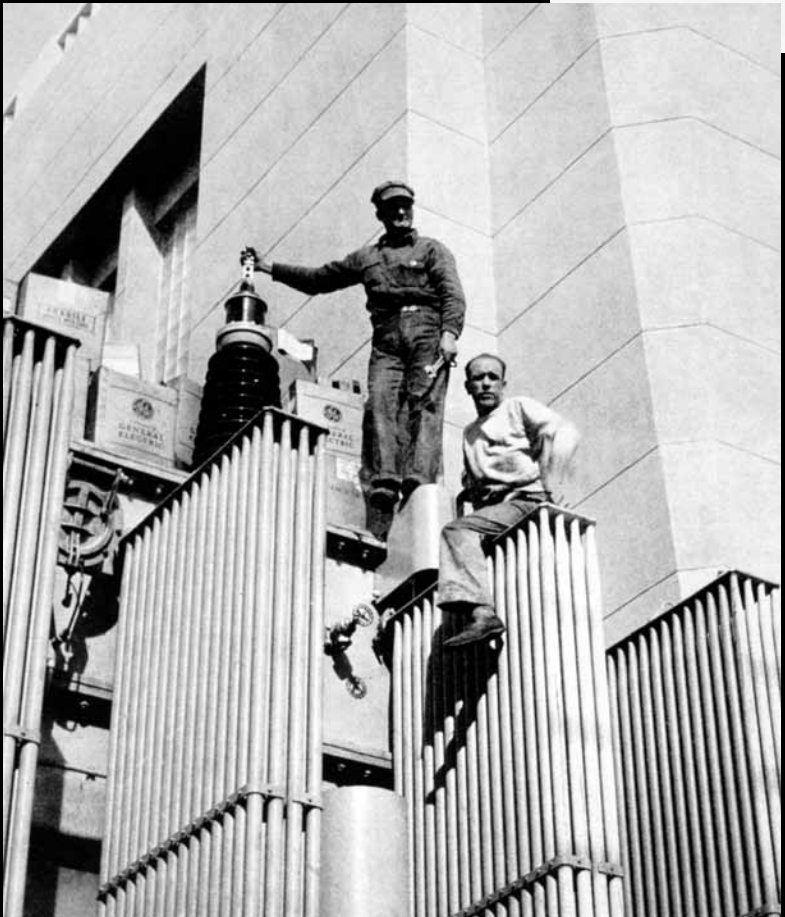
touches every fabric of American life. It’s the underlying, underpinning foundation of our economy. We have to have energy, and Santee Cooper’s been instrumental in making that happen in this state,” Carter says. “In a sense, we’ve enabled prosperity.”

April 7, 2009, will mark the 75th anniversary of the enabling act that created the South Carolina Public Service Authority — more commonly known as Santee Cooper. PowerSource is observing this anniversary in each quarterly issue of 2009. The spring issue will profile the histories of Santee Cooper’s generating stations. The summer magazine will examine how Santee Cooper lives up to its mandate of improving the quality of life for the people of South Carolina. And in the fall PowerSource will reflect on the 20th anniversary of Hurricane Hugo’s landfall in South Carolina — a major event in the utility’s history. PS



(Left) Two workers stand atop a transformer at the Pinopolis Powerhouse. Electricity traveled from the hydro station to the switchyard located along the banks of the Tailrace Canal.

(Top) Newberry Electric Cooperative was one of the 14 original members of the Central Electric Power Cooperative, which formed in 1948 to build the distribution infrastructure to supply rural South Carolina with Santee Cooper power. Here, a pair of Newberry Cooperative line workers prepare to service a distribution pole.



POWER DOWN ENERGY CONSERVATION POWER DOWN AND POWER DOWN EFFICIENCY POWER DOWN KEYS TO POWER DOWN COST CONTROL POWER DOWN BY MOLLIE GORE PHOTOS BY JIM HUFF

Costs are increasing everywhere you look, it seems. At Santee Cooper, the cost of coal – our primary fuel for energy generation, and still the most affordable fuel for base load power – has doubled since the summer of 2007 due to global demand issues and other factors beyond our control. Santee Cooper’s aggressive buying of coal during a price drop in late 2007, our diverse mix of fuel and our long-term strategic contracts with vendors have helped us delay increasing fuel costs for our customers, but now customers are beginning to feel the impacts of higher fuel costs.

Santee Cooper is doing all that we can to hold down our own expenses and keep our customers’ power bills as low as possible. We have implemented substantial budget cuts, are delaying or cutting construction projects and are not filling vacant positions where possible, as examples. We have conducted energy audits on our own facilities and are implementing the audit recommendations to cut down on our own power consumption. And we are continuing to utilize longstanding relationships in the energy sector to negotiate for the best fuel prices.

In addition, we are actively communicating ways customers can manage their own power consumption and keep cost increases to a minimum. Visit www.SanteeCooperGreen.com/ PowerDown for more comprehensive tips and power-saving strategies, and read on for the tips with the biggest impact.



Heating and Air Conditioning

Set your thermostat for energy economy. Try 78 degrees or higher in the summer — anything lower, and your energy bill increases by up to 5 percent per degree! In the wintertime, set your thermostat to 68° or lower. This range will provide reasonable comfort if all your equipment is working properly.

Change or clean your heat pump filter at least once a month. A dirty filter chokes air flow and forces your equipment to work harder, causing higher energy bills. Use low-density disposable filters, unless your system is specifically designed to accommodate high density filters. High density filters such as the pleated variety can restrict air flow in some systems.

Rearrange or remove objects such as furniture, curtains, and plants from around heating and cooling registers so as to not block air distribution or impede heating and cooling equipment performance.

Always set your thermostat’s fan system setting to “auto” mode.

Set your water heater temperature to 120 degrees or lower.

In the Kitchen

Full appliances are efficient appliances. Run your dishwasher only when it’s full — reduced usage will save energy and keep your energy costs down. Also, full freezers and refrigerators retain cold air better, and so require less energy to keep cold.

Set your freezer to 3° instead of 0° Fahrenheit. Food will stay frozen, and you will conserve energy.

Install your dishwasher away from the refrigerator — otherwise, the dishwasher’s heat will make the refrigerator work harder. Also, use the “no heat” setting on your dishwasher — heat drying is not necessary after a hot-wash cycle.

Use a toaster oven for small jobs — it uses up to half as much energy as a conventional oven. And use your microwave, which is more efficient than either oven.

Cover pots and pans with tight-fitting lids — trapped steam helps cook food faster on an electric stove, saving you energy costs.

Close the refrigerator door — every time it’s opened, up to 30 percent of cool air escapes.

Turn off the oven 10 to 15 minutes before cooking time runs out — food will continue to cook without the extra energy.

Lighting

Switch to compact fluorescent light bulbs — they use up to 75 percent less energy than standard bulbs, last up to 10 times longer, and save you about \$30 in electricity costs over the bulb’s lifetime.

Install dimmer switches where it makes sense in your home — use them on frequently used lights.

Replace outdoor lights with motion-detector lighting — lights that are not being used will stay off and save energy. Inside, turn off lights when not in use — you save more energy turning them off than leaving them on.

Arrange furniture to take advantage of natural light — place desks and reading chairs next to windows so you don’t need additional light during the day.

Paint interior walls a lighter color — this will reflect light throughout your house and limit the need for additional lighting.

In the laundry room

Clean the lint filter after every laundry load — a clogged filter slows drying and uses more energy.

Only use hot water for very dirty loads — regular laundry loads get just as clean with cold water and use less energy to wash.

Always measure detergent when doing laundry — too many suds will make the washer work harder than it should. Make sure you use the correct amount and save energy.

Other

If you heat an outdoor pool, cover it when not in use — this will conserve up to 70% of energy that would otherwise go up in steam.

Turn your TV off, even if it’s just for a few minutes. It’ll save energy. And save you money.

Beware of Phantom Power — many electronics use power when “off.” Unplug them when not in use and save energy.

Schedule an energy audit — you’ll learn more about your energy consumption and other steps you can take to cut energy costs. Or take the free online audit at www.SanteeCooperGreen.com. **PS**



OTHER TIPS TO CONSIDER:

- Seal off unused rooms in your house — turn off thermostat and close vents in these rooms to save energy.
- Save energy while on vacation — in the winter, set your home thermostat to 55 degrees. This will save energy and is warm enough to prevent your pipes from freezing.
- Install more attic insulation — upgrading from three inches to twelve cuts heating costs up to 20% and cooling costs up to 10%.
- Install weather stripping on windows — it minimizes gaps and reduces heat loss, helping you keep heating costs down and save energy. Also, consider placing door sweeps on exterior doors — they also reduce heat loss.
- Use your ceiling fan — in the summer, the wind chill effect can compensate for a thermostat set four degrees warmer. In the winter, reversing the blades pushes warm air down through the room.
- Cover up when it’s cold — in the winter, before raising the thermostat, try putting on a sweater or sleeping with an extra blanket. You’ll keep your heating costs down and save energy.
- Don’t let air escape from inside your house — keep the damper closed when the fireplace is not in use. You’ll keep the warm air in and reduce the need to turn up your thermostat.
- Take advantage of the sun’s warmth — open curtains and shades when the sun is shining to help keep your house naturally warm.

ROSS GENERATING STATION: 2,400 MEGAWATTS STRONG

By Willard Strong Photos by Jim Huff

It has been said that committing hundreds of millions of dollars to construct a generating station or a new unit is the biggest decision the Santee Cooper board makes when moving forward to serve the state's energy needs.

With that foresight, the board made such a landmark decision in September 2001, launching Santee Cooper on a course that ended with two new units of 1,200 additional megawatts at the Cross Generating Station. Cross Station is an important part of Santee Cooper's balanced approach to meeting the state's energy needs.



(Left) The expansiveness of the turbine floor is featured with Cross Unit 4's turbine in the background. The feedwater heater is an intricate array of pipes and valves.

This balanced approach will continue to employ traditional generation, new nuclear power and continued new initiatives in an ambitious conservation and renewable energy portfolio.

That September 2001 board decision approved a recommendation from executive management to proceed with permitting and constructing the 600-megawatt, \$675 million Cross Unit 3, toward an eventual Jan. 1, 2007 commercial operation date.

“Our construction team began this effort in April 2004,” Bill McCall, executive vice president and chief operating officer said of the Cross 3 project. “In 33 months, they built a major coal unit, amid steel and worker shortages, delays in permits, and other construction hurdles. I don’t know of any other utility that has achieved such a feat. Our employees worked long hours and through many tough situations to achieve this historic success. They weathered the bumps well, which is a testament to their expertise and perseverance.”



(Left) President and Chief Executive Officer Lonnie Carter (left), O.L. Thompson, chairman of the Santee Cooper board and Executive Vice President and Chief Operating Officer Bill McCall unveiled this plaque at Cross Station during the Oct. 16 dedication for Cross Units 3 and 4.

(Above) A reliable supply of coal, which arrives by rail, is critical to the successful operation of Cross Station, which is projected to burn 6.25 million tons of coal annually.



The board approved construction of the \$755 million Unit 4 in February 2004. When Unit 3 went commercial less than two years ago, Unit 4 was already 40 percent complete. Although originally scheduled for a Jan. 1, 2009 commercial operation date, Unit 4 was declared officially part of Santee Cooper’s generating fleet three months early, on Oct. 1.

Cross Station, at nearly 2,400 MWs, is now the largest, most modern and cleanest coal-fired generating station in South Carolina. Santee Cooper’s net generating capability is now approximately 6,300 MWs, and the utility is the state’s largest power producer.

“Completing a project of this magnitude on time and on budget, that’s important and very impressive in today’s world,” said President and Chief Executive Officer Lonnie Carter. “I am proud of everyone who worked hard on this project, everyone. There were a lot of challenges, but when the chips were down, we rallied. What we’ve demonstrated is that we can do it, and do it better than most.”

The Cross units were big job creators. The employment level for both units peaked at 1,810 contract workers in March 2006. The multinational firm WorleyParsons was the project’s designated architect/engineer. Santee Cooper served as its own general contractor. This allowed Santee Cooper to better manage the construction schedule and costs, a strategy that pays off for customers of Santee Cooper and the 20 electric cooperatives statewide that depend on Santee Cooper as its source of power.

“On the operational end, utilizing these new units allows Santee Cooper to reduce the amount of higher priced natural gas and purchased power,” said Phil Pierce, vice president of fossil and hydro generation. “It enables the utilization of lower-priced generation, which helps control power costs for all customers.”



This cooling tower ensures critical equipment at Cross Station runs at a safe operating temperature. In the foreground is a storm water runoff pond.

CROSS UNITS 3 AND 4 CONSTRUCTION STATISTICS	
Cost of Units	\$1.4 billion (Unit 3: \$675 million, Unit 4 \$755 million)
Nameplate Rating	600 megawatts for each unit (580 MWs net)
Unit 3 Initial Synchronization Date	Oct. 31, 2007
Unit 3 Commercial Operation Date	Jan. 1, 2007
Unit 4 Initial Synchronization Date	April 26, 2008 (two months early)
Unit 4 Commercial Operation Date	Oct. 1, 2008 (three months early)
Time to Construct	54 months (beginning April 2004)
Peak Construction Employment Level	1,810 in March 2006
Truck Loads of Concrete Used	20,000 or 200,000-cubic yards, most made at on-site batch plant
Soil Excavated, Hauled, Compacted and Graded	300,000-cubic yards
Concrete Pilings Installed	20,000
Amount of Steel Used	40,000 tons
Amount of Structural Steel Used for Turbine Building, Coal Silo Bay and Boiler	10,500 tons, fastened together with more than 150,000 bolts
Laydown Area Used On-site to Stage and Store Parts and Materials	65 acres
Number of Separate Contracts on Units 3 and 4	142, ranging from \$100,000 to \$170 million
Number of Employees at Cross Station	Approximately 225
Station Manager	Levon Strickland



(Above) A rotary coal hopper is a key component to the efficient unloading of coal from railcars at Cross Station.

A byproduct of the coal combustion process is the production of synthetic gypsum that gathers in these piles. Gypsum is a key ingredient in the production of wallboard. Santee Cooper recycles 90 percent of its coal-combustion byproducts, compared to the national average of 40 percent.

Santee Cooper’s recently revised generation plan indicates a generation shortfall of 490 MWs by 2013, 800 MWs by 2015 and

1,570 MWs by 2020.Even with the Cross units, more base load power is necessary to meet the state’s growing energy needs.

Cross Units 3 and 4 add to Santee Cooper’s diverse generation mix as the utility continues to meet the state’s energy needs with affordable, reliable electricity that is protective of our environment.

Environmental Technology At Work
Coal-fired generating station technology has improved greatly in recent decades, benefiting our environment while at the same time providing customers affordable and dependable electric power.

“Santee Cooper is utilizing environmental control technology that will result in South Carolina’s cleanest coal-fired units,” said Maxie Chaplin, who just retired as senior vice president of generation Dec. 31. According to Tom Kierspe, vice president of construction services, the total installed cost of environmental equipment on Cross Unit 4 alone was approximately \$220 million. That’s a little over one-third of the unit’s entire cost. The emissions-control systems will result in:

- The removal of 99 percent of particulate matter by using of an electrostatic precipitator. Cost: approximately \$68 million per unit
- The removal of 97 percent of sulfur dioxide by using a wet flue-gas desulfurizatoin process. Cost: approximately \$81 million per unit
- The removal of 90 percent of nitrogen oxides by using low-NOx burners, over-fire air and a selective catalytic reduction process. Cost: approximately \$60 million per unit

“The combination of the precipitator, the SCR and the scrubber do an excellent job of removing mercury,” said Julie Metts, supervisor of air quality assessment. “By using this technology, Santee Cooper demonstrates a commitment to balance environmental responsibility as we meet the state’s growing energy needs.” **PS**

Branding Santee Cooper

By Phil Fail

Photos from Santee Cooper Archives

In 1934 legislation was signed that gave birth to The South Carolina Public Service Authority. Five years later construction of the Santee Cooper Navigation and Hydroelectric Project was underway. Now, three quarters of a century later, Santee Cooper is the vibrant and enduring result. S.C. Public Service Authority, Santee Cooper Navigation and Hydroelectric Project, and Santee Cooper are handles, snapshots in time of our organization. In marketing speak Santee Cooper is a brand. Or as Shakespeare put it, “A rose by any other name would smell as sweet.”

A brand is a perception, a firm’s personality and reputation, an expectation of behavior based on past performance, a promise made and kept time and again. A brand is an ongoing relationship between an enterprise and those who encounter it, whether they are customers, employees or neighbors.

Santee Cooper, The Name

Officially, Santee Cooper is The South Carolina Public Service Authority. The common name is drawn from the Santee and Cooper rivers that were connected by the Navigation and Hydroelectric Project. Over time, the resulting lakes and surrounding area became known as Santee Cooper or Santee Cooper Country.

“Santee
Cooper
has a
unique
position
among
utilities.”

“Santee Cooper has a unique position among utilities,” says MarketSearch President and CEO Frank Brown, architect of the study. “Generally utilities fall between two opposite poles on a scale. On one side is technical competence and on the other is a friendly company that cares about their customers. The results showed

In 2007, the utility launched a major brand study to learn what Santee Cooper means to people. The study involved multiple research elements, including telephone and written surveys and focus groups, among a wide range of folks from all over the state: customers, non-customers, and employees. The results were surprising, and affirming.



WWII era ad showing the might of the Santee Cooper project.

Santee Cooper stands out in both! Not many utilities its size would do as well as Santee Cooper on the caring side of the equation.”

So, who is Santee Cooper?

The study of the Santee Cooper brand showed several things. We are dependable, friendly and familiar. We excel at power delivery and quality. We are known for excellent customer service. The number one thing customers identify us with is being environmentally conscious.

Santee Cooper is South Carolina’s state-owned electric and water utility company, serving more than 2 million residential and commercial customers directly or indirectly.

“We’re in an enviable position for any company,” says Laura Varn, Santee Cooper Vice President of Corporate Communications and Media Relations. “We’ve earned our reputation because Santee Cooper employees show that they care about our communities, our customers and the environment. Whenever you see anything from Santee Cooper, you know you’re getting the very best service from

the most dependable power company in South Carolina.”

Santee Cooper, The Logo

In 1977 the modern logo was born. It was simple, a stylized S and C in the shape of the state of South Carolina with the name Santee Cooper stacked beside it. The legal name, The South Carolina Public Service Authority, appeared below and smaller. The logo stood as a visible symbol of Santee Cooper’s mission, as stated in the enabling legislation, “to improve the lives of all the people of South Carolina.”

Since then, the logo has remained substantially unchanged, while Santee Cooper has changed a lot. We’ve grown to be the largest generator of electricity in the state and a significant provider of drinking water.

This Santee Cooper truck displays the corporate identity, anchored by the logo, introduced in the 1970s.



The late Bill Mescher, former state senator and President and CEO of Santee Cooper 1976-1989, shows off the brand new Santee Cooper logo in this photo for the 1976 Annual Report.

“The logo no longer accurately portrayed our brand,” says Santee Cooper Designer Tom Galmarini. “The original design was showing its age after 30-some years.” Galmarini designed a revised logo, still fundamentally tied to the original. It maintains the familiar mark of the state-shaped SC, and now the name Santee Cooper appears in lower case and on a single line. The san-serif Helvetica Neue font is more open and congenial. The hunter green color is one that many people associate with Santee Cooper, according to survey and focus group results.



This sign shows the “look” used earlier in Santee Cooper’s history.

“Green Power” will promote our renewable energy program and finally, “water” will designate operations of the Lake Marion and Lake Moultrie regional water systems. In addition, each word will introduce a color scheme that will further distinguish each sub-brand.

The new marks were pressed into service on January 1, 2009 and will appear in all of Santee Cooper’s marketing, advertising and corporate communications. In fact, you may have already noticed the change in this issue of *PowerSource*.

Where can you find Santee Cooper?

Santee Cooper is in your homes, at your office, at the lake... really wherever you go. From our main service areas in Berkeley, Georgetown and Horry counties, to member-owners of the state’s 20 electric cooperatives, to the municipalities of Georgetown and Bamberg, to the Charleston Air Force Base, and 29 large industrial customers, Santee Cooper touches lives all across our state in ways many people don’t even realize.

That speaks to another quality of the enhanced logo: it is flexible. Santee Cooper has offered products and services for our residential and commercial customers for decades, and yet the logo was universally applied to everything. To better identify and differentiate our growing number of products and services, the enhanced logo has been organized into a hierarchy. They include an add-on tag – a sub-brand actually, designated with the inclusion of an additional word under the main logo: “home” will mark products and services directed to residential users; “business” will label those programs targeting commercial customers; “green” will promote the many initiatives and programs related to conservation and energy efficiency;

This enhanced logo is just a symbol, true. It is also a renewed commitment that Santee Cooper will continue striving to serve as the state’s leading resource for improving the quality of life for all South Carolinians. Santee Cooper will continue fulfilling that mission and its brand through low-cost and reliable energy, water, and other essential services; through excellent customer service; through maintaining a quality work force and operating according to the highest ethical standards; through protecting our environment; and through being a leader in economic development.

We understand that life requires power on demand. And Santee Cooper will continue to bring it to you — wherever you may be. **PS**





“A Place Where Generations Return”

Paulleys Island

By Willard Strong
Photos by Jim Huff



(Left) Mark Peterson, a senior customer service representative, manages Santee Cooper's Pawleys Island office.

Charles Swenson is editor of *The Coastal Observer*, a weekly newspaper founded by him and his wife. A native New Yorker, Swenson is like many who have discovered the Pawleys Island area as a place to work and live.

More than anything, it's a unique "sense of place" that defines Pawleys Island — and the fact that it endures, largely intact, in its "arrogantly shabby" form.

It's survived hurricanes, the Civil War, two world wars, the Great Depression, the incursion of surrounding gated communities and frenzied real estate development. The best way to describe "Pawleys," as most call it, comes from a story in the Nov. 18, 1985 edition of *The New York Times*, soon after the small island was incorporated.

"People at Pawleys today have pretty much the same life that their parents had, and their parents before them," said Linwood Altman, long-time resident, former legislator, Realtor and president of the Pawleys Island Civic Association at that time. It is typical that beach houses on this four-mile long barrier island have remained in families for decades.

"Pawleys is a place where generations return," said Mayor Bill Otis. "I like to say that when you go over one of the two causeways and get

onto the island, your blood pressure goes down."

Except for beach house rentals, commercial activity is prohibited on the island, a far cry from today's common resort experience. It's part of Pawleys' charm.

"There's no hurly-burly or neon lights that you see in other resorts," said Bill Hancock, another local who was quoted in that same *Times* story. It's been that way for at least 150 years, and Pawleys is one of the oldest seaside communities in the country.

The Early Years

"Pawleys Island was apparently named for three Pawley brothers: George, Anthony and Percival," according to the 1972 book "Pawleys Island...A Living Legend," by Charlotte K. Prevost and Effie L. Wilder.

Percival Pawley was the recipient of an English land grant in the area as early as 1711 and tracts were passed down. A descendant of George

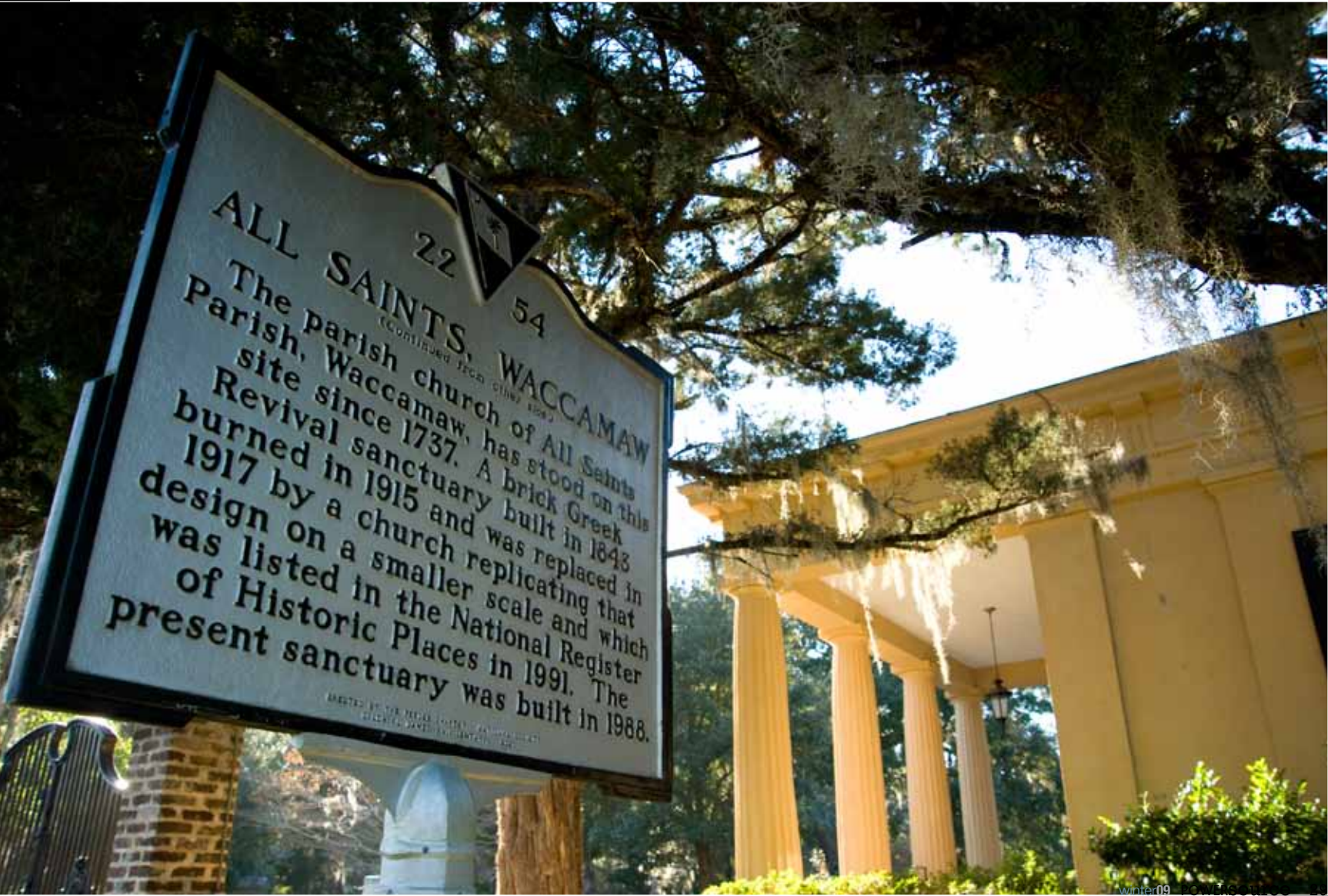
Pawley, George II provided dinner to President George Washington at his home near the island during Washington's 1791 Southern tour, as his entourage was making its way to Charleston. But a Pawley never had a beach house on the island.

Pawleys Island, about 950 acres in Georgetown County, is part of the Waccamaw Neck, that narrow spot of land that runs from Georgetown's Winyah Bay to Murrells Inlet. It

has about 150 full-time residents and the population swells to about 5,000 around the Fourth of July. To the west is the Waccamaw River. To the east is the Atlantic Ocean.

What gave rise to Pawleys was what made South Carolina one of the richest of the 13 colonies: rice. The Neck, with its freshwater from the Waccamaw River, provided one of the few places in the Colonies where rice could be cultivated with relative ease. A wealthy, ruling rice planter class with large

The Greek Revival architecture of the old All Saints Episcopal Church, circa 1917, is a noted landmark on the Waccamaw Neck near Pawleys Island.





The porch of the P.C.J. Weston House, commonly called the Pelican Inn, presents a view of the saltwater Pawleys Creek. The oceanfront house, which features this joggling board, was built by 1858 and is one of the oldest houses on the island.

plantations rose by the 1740s in and around Georgetown and the Neck. They grew the prized “Carolina gold”, a highly sought-after strain.

This wealth gave rise to All Saints Parish, established in 1767. All Saints Episcopal Church was constructed near the island, where parishioners had been worshipping by 1737. A brick Greek Revival church was built in 1843, but burned in 1915. It was replaced with a replicated church two years later. The present church, across the road, was completed 21 years ago. The old church and cemetery entered the National Register of Historic Places in 1991.

By the mid-1840s, Pawleys became a place for planters to escape the “summer fever” or malaria. They built beachfront houses of cypress wood behind the high sand dunes. The summer season was typically May to November. Some families only a few miles from their permanent homes, loading up flatboats and rowboats on a plantation dock on the Waccamaw, Black or Great Pee Dee rivers. From there they would go down river and disembark in Pawleys Creek behind the oceanfront. A causeway, today’s South Causeway or south entrance to Pawleys, became a much appreciated pathway to the island upon completion in November 1846.

While summering at Pawleys in those days, civilization wasn’t completely left behind. The All Saints summer parsonage, completed by 1848, hosted evening summer services for communicants. The interdenominational Pawleys Chapel, jutting out over the creek, serves that purpose today.

During the Civil War, the island benefitted from a nearby Confederate salt works operation and played a minor role in blockade running. The war devastated the plantation system with its rice culture and cultivation of cotton, which had become more prevalent since the mid-1790s in surrounding locales, extending to the Midlands and Upcountry.

A famous ghost, the Gray Man, is said to haunt the island. He knocks on doors, warning of impending disaster from hurricanes. If he does visit you, the tales go, your house will be spared from harm.

Hurricanes hit Pawleys hard in 1822 and 1893, claiming many lives on the oceanfront in the days before long-range weather forecasting. Witnessing “a lighted residence plunging and floating on the stormy sea” as Prevost and Wilder wrote, was a tragic scene that occurred on more than one occasion.

Twentieth-century hurricanes Hazel and Hugo also did considerable damage.

Transportation, Power and Development

Getting to Pawleys from Georgetown was always a challenge because no bridge traversed the rivers. A leap forward came when the ferry boats “Pelican” and “Cornwallis” were put in use in 1926. Arthur H. “Doc” Lachicotte Jr., whose father founded The Hammock Shop at Pawleys in 1938, remembers riding these ferries, which made daily trips from Georgetown up the Waccamaw River.

“About every 20 minutes, they’d leave the dock at Georgetown,” said Lachicotte, who lived at Waverly Plantation on the Neck. The Lafayette Bridge (later named the Harrell Siau Bridge) over the rivers was completed in 1935. The latest four-lane bridge on U.S. Highway 17 toward Pawleys entered service in 1966.

The Original Pawleys Island Hammock, like the one found here at the Pelican Inn, is an example of a product uniquely Pawleys Island, uniquely South Carolina.



Electric power, another convenience that came to the area in the 20th century, had been provided to Pawleys by the Waccamaw Power Co. until Santee Cooper acquired it in November 1949. This occurred seven years after Santee Cooper first generated electricity. The system received a badly needed upgrade.

Today the entire Neck is served by Santee Cooper, from DeBordieu Colony north of Georgetown to Pawleys, Litchfield Beach and Murrells Inlet.

Santee Cooper has a retail office on the mainland at Pawleys, off U.S. Highway 17. Managed by Senior Customer Service Representative Mark Peterson, the early 1980s-era building gives the kind of interaction with customers that results in consistently high customer satisfaction ratings.

“On a busy day, we’ll see 60 to 70 customers walk in with about 60 using the drive through window,” Peterson said. “The older folks like to have that face to face contact and visit a little while.”

Big-time development began coming to the Neck in the 1970s and 80s, as more gated communities, large condominium neighborhoods and developments blossomed.

“At the peak a few years ago, we were probably running 10 to 20 new cut-ins a month because of development,” said Peterson.

Charles Swenson is editor of the *Coastal Observer*, a 26-year-old weekly newspaper with a circulation of 5,000. He and his wife, M.P. “Squeaky” Swenson, the publisher, chronicle the area’s life with an eight-person staff. A native New Yorker, he was introduced to Pawleys by his parents, who have a beach house near the island.

“The paper is basically the mirror of the community,” Swenson said. “We’ve seen the challenges posed by land use, zoning issues, density issues and architectural standards. Right now, a big issue isn’t these



Golden sea oats are protected by law and protect sand dunes from erosion borne by sea and wind.

big tracts being developed, it’s the ‘in-fill’ development.” Concern for their future led islanders to incorporate by a vote of 73-47. “Incorporation was a way for people on the island to take control of their own destiny,” said Swenson. “People had legitimate concerns about decisions that were being made at the county level.”

Islanders and mainlanders alike feel they should be heard in governmental matters. That’s because the Neck is where the vast majority of county property taxes sent to Georgetown originates.

Altman is quick to recite a wish list of area needs including more recreational facilities, adherence to architectural standards and better evacuation routes. Beach renourishment gets periodic attention, and burying power lines is also high on the list.

“Santee Cooper is cooperating to the extent that they can on underground lines,” said Altman. “I think Santee Cooper does a great job. They’re on top of things.”

Pawleys Island in the 21st century

Visiting the mainland today one finds three relatively new automobile dealerships (two relocated from Georgetown) a grocery store,

convenience stores and nearly a half dozen roadside developments sporting specialty shops from gourmet and fine dining, to jewelry to artwork. There are banks and offices of doctors and dentists.

Nothing is more inviting and relaxing than a wooden rocker overlooking Pawleys Creek, where crabbing, fishing and reflecting are easily found.



Today’s real estate market is slow and “sales are scarce but rentals are about the same,” said Lachicotte, a member of Santee Cooper’s Customer Advisory Council.

A beachfront rental at Pawleys these days runs from \$1,500 to \$7,000 a week, with the nine-room Pelican Inn (or the P.C.J. Weston House, circa 1848), going for \$9,000 a week. Altman said the first million dollar home purchased on Pawleys occurred “about four or five years ago.” Right before World War II, a week on the beachfront would cost you between \$25 and \$30 but put it in perspective: A new Ford or Chevrolet sedan cost less than \$900 then.

Traditional island events include the Fourth of July parade and the Pawleys Pavilion reunion, where shag dancing is celebrated and summer memories relived. The Pawleys Island Tour of Homes is another annual event.

Otis said his biggest challenge as mayor is living up to the town’s mission statement, which he knows by heart: “Pawleys Island has a unique heritage of history, gentleness and tranquility, and the town council’s mission is to preserve and protect this heritage.”

About 12 residences remain in the historic district, protected by town ordinance and those high dunes that have helped them survive countless northeasterly storms, along with tropical storms and hurricanes. Through it all, this special barrier island continues to draw those who seek solitude by the sea. **PS**

First Birthday Noted

Santee Cooper's Department of Conservation and Renewable Energy passed its first birthday in October, amidst a flurry of new and expanded Santee Cooper Green programs.

Santee Cooper dedicated five new Green Power Solar Schools in September and October, moving closer to its goal of one solar school in each of the 20 electric cooperative territories across the state. Santee Cooper partnered with Edisto, Fairfield, Horry, Lynches River and York electric cooperatives to install solar panels and prepare supporting classroom and laboratory materials for a school in each of those co-op territories.

Through its Green Power Solar Schools program, Santee Cooper and the electric cooperatives are offering hands-on instruction on renewable energy, and real-time lessons on the challenges and opportunities associated with solar power.

In another area of expansion, Santee Cooper opened the 3.2-megawatt Anderson Regional Landfill Generating Station, its fourth renewable biogas

landfill generating station in the state. The station launched into commercial operation Sept. 1.

The \$3.8-million Anderson Station provides enough power for about 1,500 homes and brings the utility's renewable landfill generation to more than 17 megawatts. The biogas stations are fueled by methane gas that occurs naturally from decomposing garbage.

Santee Cooper expanded its efforts to tap into wind as a renewable generating fuel, too. The utility already has two 150-foot wind towers measuring wind speed, direction and frequency on the state's coast. In November, Santee Cooper installed its first tower to research the viability of small-scale wind turbines that could generate power at inland locations in coastal communities.

Georgetown High School is the site of the first 60-foot tower; a second was installed at Coastal Carolina University, and two more are planned for schools still to be named. These research projects are expected to take three to six months and if data supports it, would be followed by installations of

1.8-kilowatt wind turbines.

Santee Cooper Green tapped into two new areas in the fourth quarter, too: hydrogen research and biomass generation.

The utility contracted with Rollcast Energy Ltd. to purchase 50 megawatts of biomass power from a new facility Rollcast will build in Newberry County, utilizing South Carolina forest residue and wood waste as its generating fuel. It will be the first such commercial biomass facility in the state and is expected to be online in 2011.

And in November, Santee Cooper and the Center for Hydrogen Research announced a project that significantly advances hydrogen generation from renewable energy sources. Santee Cooper is providing \$230,000 to the Center for the purchase of a 20-kilowatt photovoltaic array (PV) to help research applications of hydrogen as a storage solution for solar energy.

One obstacle to solar energy is difficulty storing it for use when the sun isn't shining. Hydrogen can be stored and transported, and so is a recognized



energy storage solution that has applications for powering vehicles or electrical generation. The PV array would convert sunlight into electricity, which would then produce hydrogen through electrolyzing water. Hydrogen could be converted back to electricity using fuel cells, and it could power hydrogen-fueled vehicles.

Funding is provided through Santee Cooper's Green Power program, which the state's 20 electric cooperatives support and promote.

“Historic” Bond Sale

In late October, as national and international financial markets set loss and gain records almost daily, the Santee Cooper Board of Directors approved what one financial advisor called a “historic” sale of \$667 million revenue obligation bonds. The bonds will be used to help fund capital projects, including ongoing transmission upgrades and projects associated with planned construction of new coal-fired and nuclear generation.

The issue included approximately \$407 million tax-exempt Series A bonds and \$260 million taxable Series B bonds. Maturities range from 2010 to 2038. The all-in true interest cost was calculated at 6.1449 percent.

Financial advisors credited Santee Cooper's strong credit ratings and financial performance for the successful sale, which was oversubscribed across the spectrum.

Fitch said its AA rating “reflects Santee Cooper's strong financial profile... strong financial metrics, solid liquidity, and timely cost recovery mechanisms.”

Mini-bond Sale Concludes

Santee Cooper also executed a successful mini-bond sale in the fourth quarter. At its October meeting, the utility's Board of Directors approved the sale of tax-free mini-bonds in an amount not to exceed \$24,570,000.

The total number of orders for the Santee Cooper Capital Appreciation Mini-Bond and the Santee Cooper Current Interest Bearing Mini-Bond was 1,757. Rates on the bonds ranged from 3.0 on the 2013 maturity to 4.8 percent on the 2028 maturity.

The mini-bond sale provided an opportunity for South Carolinians to purchase Santee Cooper bonds and generated funds for the utility's capital improvement projects. **PS**

santee cooper



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